

What is claimed is:

- 1 1. An acidic beverage composition, comprising;
2 (A) a hydrated protein material having a combination of an inositol-6-
3 phosphate content, an inositol-5-phosphate content, an inositol-4-phosphate content
4 and an inositol-3-phosphate content of less than 8.0 $\mu\text{mol/g}$, wherein the protein
5 material, prior to hydration, is prepared by a process comprising:
6 (1) preparing an aqueous extract from a protein containing plant
7 material,
8 (2) adjusting the pH of the extract to a value of from about 4 to
9 about 5 to precipitate the protein material,
10 (3) separating the precipitated protein material and forming a
11 suspension of the precipitated protein material in water,
12 (4) adjusting the pH of the suspension to a value of from about 3.5
13 to about 6 to form a partially solubilized protein material in water,
14 (5) adding a phytase to the partially solubilized protein material in
15 water to form a phytase treated protein material, and
16 (6) drying the protein material; and
17 (B) a hydrated protein stabilizing agent and
18 (C) at least one flavoring material comprising a fruit juice, a vegetable
19 juice, citric acid, malic acid, tartaric acid, lactic acid, ascorbic acid, glucono delta
20 lactone or phosphoric acid,
21 wherein the acidic beverage composition has a pH of from 3.0 to 4.5.
- 1 2. The composition of claim 1 wherein the hydrated protein material comprises a
2 soybean protein material, wheat gluten or zein.
- 1 3. The composition of claim 2 wherein the hydrated soybean protein material
2 comprises soy flour, soy concentrate or soy protein isolate.

- 1 4. The composition of claim 2 wherein the hydrated soybean protein material
2 comprises soy protein isolate.
- 1 5. The composition of claim 1 where phytase is present in (A)(5) at from about
2 500 to about 2200 units of phytase per gram of protein.
- 1 6. The composition of claim 1 where phytase is present in (A)(5) at from about
2 600 to about 2100 units of phytase per gram of protein.
- 1 7. The composition of claim 1 where phytase is present in (A)(5) at from about
2 720 to about 1400 units of phytase per gram of protein.
- 1 8. The composition of claim 1 wherein the composition contains the hydrated
2 protein material in an amount of from 0.1 percent to 10 percent by weight.
- 1 9. The composition of claim 1 wherein the stabilizing agent (B) is present in a
2 weight ratio of (A):(B) of from 1:0.01-0.2.
- 1 10. The composition of claim 1 where the combination of inositol-6-phosphate,
2 inositol-5-phosphate, inositol-4-phosphate and inositol-3-phosphate is less than 6.0
3 $\mu\text{mol/g}$.
- 1 11. The composition of claim 1 where the combination of inositol-6-phosphate,
2 inositol-5-phosphate, inositol-4-phosphate and inositol-3-phosphate is less than 3.0
3 $\mu\text{mol/g}$.
- 1 12. The composition of claim 1 wherein the protein stabilizing agent comprises a
2 polysaccharide hydrolysate.
- 1 13. The composition of claim 12 wherein the polysaccharide hydrolysate
2 comprises dextrin, agar, carrageenan, tamarind seed polysaccharides, angelica gum,

3 karaya gum, xanthan gum, sodium alginate, tragacanth gum, guar gum, locust bean
4 gum, pullulan, jellon gum, gum arabic, and propylene glycol alginate ester.

1 14. The composition of claim 12 wherein the protein stabilizing agent is jellon
2 gum.

1 15. The composition of claim 1 wherein the pH of the acid beverage composition
2 is from 3.2-4.0

1 16. The composition of claim 1 wherein the pH of the acid beverage composition
2 is from 3.6-3.8.

1 17. An acidic beverage composition, comprising;
2 (A) a hydrated protein material having a combination of an inositol-6-
3 phosphate content, an inositol-5-phosphate content, an inositol-4-phosphate content
4 and an inositol-3-phosphate content of less than 8.0 $\mu\text{mol/g}$, wherein the protein
5 material, prior to hydration, is prepared by a process comprising:

6 (1) preparing an aqueous extract from a protein containing plant
7 material,

8 (2) adding a phytase to the aqueous extract to form a phytase
9 extract,

10 (3) adjusting the pH of the phytase extract to a value of from about
11 4 to about 5.5 to precipitate the protein material,

12 (4) separating the precipitated protein material and forming a
13 suspension of the precipitated protein material in water,

14 (5) adjusting the pH of the suspension to a value of from about 6.7
15 to about 7.4 to form a solubilized protein material in water, and

16 (6) drying the protein material; and

17 (B) a hydrated protein stabilizing agent and

18 (C) at least one acid comprising a fruit juice, a vegetable juice, citric acid,
19 malic acid, tartaric acid, lactic acid, ascorbic acid, glucono delta lactone or
20 phosphoric acid,
21 wherein the acidic beverage composition has a pH of from 3.0 to 4.5.

1 18. The composition of claim 17 wherein the hydrated protein material comprises
2 a soybean protein material, wheat gluten or zein.

1 19. The composition of claim 18 wherein the hydrated soybean protein material
2 comprises soy flour, soy concentrate or soy protein isolate.

1 20. The composition of claim 18 wherein the hydrated soybean protein material
2 comprises soy protein isolate.

1 21. The composition of claim 17 where phytase is present in (A)(2) at from about
2 500 to about 2200 units of phytase per gram of protein.

1 22. The composition of claim 17 where phytase is present in (A)(2) at from about
2 600 to about 2100 units of phytase per gram of protein.

1 23. The composition of claim 17 where phytase is present in (A)(2) at from about
2 720 to about 1400 units of phytase per gram of protein.

1 24. The composition of claim 17 wherein the composition contains the hydrated
2 protein material in an amount of from 0.1 percent to 10 percent by weight.

1 25. The composition of claim 17 wherein the stabilizing agent (B) is present in a
2 weight ratio of (A):(B) of from 1:0.01-0.2.

- 1 26. The composition of claim 17 where the combination of inositol-6-phosphate,
2 inositol-5-phosphate inositol-4-phosphate and inositol-3-phosphate is less than 6.0
3 $\mu\text{mol/g}$.
- 1 27. The composition of claim 17 where the combination of inositol-6-phosphate,
2 inositol-5-phosphate inositol-4-phosphate and inositol-3-phosphate is less than 3.0
3 $\mu\text{mol/g}$.
- 1 28. The composition of claim 17 wherein the protein stabilizing agent comprises a
2 polysaccharide hydrolysate
- 1 29. The composition of claim 28 wherein the polysaccharide hydrolysate
2 comprises dextrin, agar, carrageenan, tamarind seed polysaccharides, angelica gum,
3 karaya gum, xanthan gum, sodium alginate, tragacanth gum, guar gum, locust bean
4 gum, pullulan, jellan gum, gum arabic, and propylene glycol alginate ester.
- 1 30. The composition of claim 28 wherein the protein stabilizing agent is jellan
2 gum.
- 1 31. The composition of claim 17 wherein the pH of the acid beverage composition
2 is from 3.2-4.0
- 1 32. The composition of claim 17 wherein the pH of the acid beverage composition
2 is from 3.6-3.8.
- 1 33. An acidic beverage composition, comprising;
2 (A) a hydrated protein material having a combination of an inositol-6-
3 phosphate content, an inositol-5-phosphate content, an inositol-4-phosphate content
4 and an inositol-3-phosphate content of less than 8.0 $\mu\text{mol/g}$, wherein the protein
5 material, prior to hydration, is prepared by a process comprising:

6 (1) preparing an aqueous extract from a protein containing plant
7 material,
8 (2) adjusting the pH of the extract to a value of from about 4 to
9 about 5 to precipitate the protein material,
10 (3) separating the precipitated protein material and forming a
11 suspension of the precipitated protein material in water,
12 (4) adjusting the pH of the suspension to a value of from about 6.7
13 to about 7.4 to form a solubilized protein material in water,
14 (5) adding a phytase to the solubilized protein material in water to
15 form a phytase treated solubilized protein material, and
16 (6) drying the protein material; and
17 (B) a hydrated protein stabilizing agent and
18 (C) at least one acid comprising a fruit juice, a vegetable juice, citric acid,
19 malic acid, tartaric acid, lactic acid, ascorbic acid, glucono delta lactone or
20 phosphoric acid,
21 wherein the acidic beverage composition has a pH of from 3.0 to 4.5.

1 34. The composition of claim 33 wherein the hydrated protein material comprises
2 a soybean protein material, wheat gluten or zein.

1 35. The composition of claim 34 wherein the hydrated soybean protein material
2 comprises soy flour, soy concentrate or soy protein isolate.

1 36. The composition of claim 34 wherein the hydrated soybean protein material
2 comprises soy protein isolate.

1 37. The composition of claim 33 where phytase is present in (A)(5) at from about
2 500 to about 2200 units of phytase per gram of protein.

1 38. The composition of claim 33 where phytase is present in (A)(5) at from about
2 600 to about 2100 units of phytase per gram of protein.

- 1 39. The composition of claim 33 where phytase is present in (A)(5) at from about
2 720 to about 1400 units of phytase per gram of protein.
- 1 40. The composition of claim 33 wherein the composition contains the hydrated
2 protein material in an amount of from 0.1 percent to 10 percent by weight.
- 1 41. The composition of claim 33 wherein the stabilizing agent (B) is present in a
2 weight ratio of (A):(B) of from 1:0.01-0.2.
- 1 42. The composition of claim 33 where the combination of inositol-6-phosphate,
2 inositol-5-phosphate, inositol-4-phosphate and inositol-3-phosphate is less than 6.0
3 $\mu\text{mol/g}$.
- 1 43. The composition of claim 33 where the combination of inositol-6-phosphate,
2 inositol-5-phosphate, inositol-4-phosphate and inositol-3-phosphate is less than 3.0
3 $\mu\text{mol/g}$.
- 1 44. The composition of claim 33 wherein the protein stabilizing agent comprises a
2 polysaccharide hydrolysate.
- 1 45. The composition of claim 44 wherein the polysaccharide hydrolysate
2 comprises dextrin, agar, carrageenan, tamarind seed polysaccharides, angelica gum,
3 karaya gum, xanthan gum, sodium alginate, tragacanth gum, guar gum, locust bean
4 gum, pullulan, jelllan gum, gum arabic, and propylene glycol alginate ester.
- 1 46. The composition of claim 44 wherein the protein stabilizing agent is jelllan
2 gum.
- 1 47. The composition of claim 33 wherein the pH of the acid beverage composition
2 is from 3.2-4.0

1 48. The composition of claim 33 wherein the pH of the acid beverage composition
2 is from 3.6-3.8.